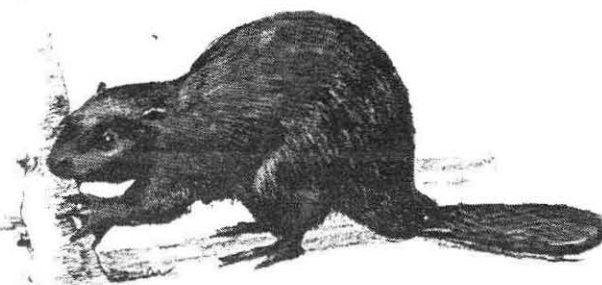




Daisy does Death
and Dave Barry.
see page 9



The ASCIT Movie
this week will be
Dangerous Liaisons

Baxter Lecture Hall,
tonight, 7:30 and 10.

THE CALIFORNIA TECH

VOLUME C, NUMBER 10

PASADENA, CALIFORNIA

FRIDAY, NOVEMBER 20, 1998

NEW TECHNIQUES IN PROTEIN FOLD- ING RESEARCH

BY TECH STAFF

Considered one of the most formidable and important challenges in science today, the problem of protein folding still invokes an aura of mystery. The problem, according to Dr. Harry Gray and Dr. Jay Winkler, both Caltech faculty, is becoming more approachable.

This past Wednesday, a special edition of *Accounts of Chemical Research*, a journal of the American Chemical Society, was published on the subject of protein folding. The guest editors, Gray and Winkler, devoted the issue to exploring new experimental approaches in protein folding.

The experimental techniques covered include ultrafast mixing, laser-induced temperature jumps, pulsed deuterium exchange, and laser-induced electron transfer. All four approaches are designed to track a protein's method of folding very early in the process, reducing the time scale from milliseconds to microseconds.

PLEASE SEE PROTEINS ON PAGE 6

SEDS WATCHES METEORS FROM JOSHUA TREE

BY LEON TORRES

Several dozen Techers and a sprinkling of faculty and JPL employees braved the chilly clime of Joshua Tree National Park early last Tuesday morning to observe the Leonid Meteor Shower. Spears of streaking light and eerie flashes from cloud-dispersed meteor trails elicited oohs and aahs from the crowd of onlookers, all lying on the ground huddling beneath multiple layers of blankets. Every now and then a bright fireball would blaze by, a colorful, flaming ball of molten starstuff many times larger than a normal meteor, an object both beautiful and frightening to behold. Many students were excited by the experience, excited to see the living cosmos, to learn that nothing is ever boring about the night sky. Alas, a stack of clouds marched in from the west and spoiled the night. At 4 am, the

PLEASE SEE METEORS ON PAGE

Students hold benefit auction

BY KATY ISAACS

A benefit auction for the victims of Hurricane Mitch will be held tonight, Friday, November 20th, at 10:00 p.m. in the courtyard between Ricketts and Fleming Houses. The auction is open to everyone.

All of the proceeds from the auction will go to buying things such as over-the-counter medicines, non-perishables, soap, first aid equipment, and water purification systems. These items will be shipped to Central America through World Vision, a nonprofit humanitarian relief and development organization.

Cynthia Gong thought of having an auction to benefit the hurricane victims after Hannah Cai made an announcement about donating food at the Ricketts-Ruddock dinner last Friday. The two undergraduate

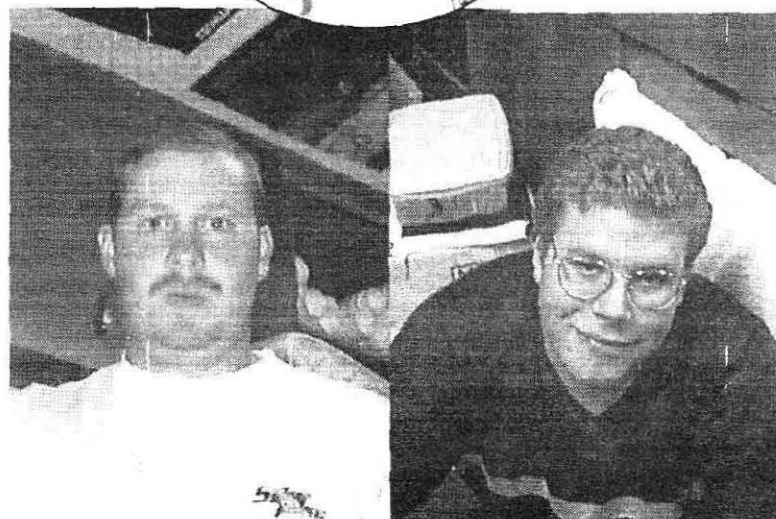
seniors have been getting donations and organizing the auction since early this week. "People are donating time all over the place," said Gong.

Senior Mike Astle will be the auctioneer for the evening. Jason Sekanina, class of '98, will be doing the lighting. Graphic Arts donated their time and skill to make fliers for the event.

Additionally, Tom Mannion and CABS, local businesses, and several others have donated items to be auctioned.

The auction list is quite extensive. It includes items such as dinner with one of many Caltech notables, gift certificates to local restaurants, packages from the Caltech Bookstore, Microsoft software, computer games, and a lot of furniture. Among the more eye-opening

PLEASE SEE AUCTION ON PAGE 4



In the auction tonight being held for the victims of Hurricane Mitch, both Jeremiah Smith and Andrew Laucius (pictured above) are being auctioned out for a date. Mike Astle will be doing the honor of being auctioneer.

Lily Cai comes to Caltech

BY TECH STAFF

The Lily Cai Chinese Dance Company will perform a program that melds ancient Chinese techniques with contemporary dance styles on Saturday, November 21, at 8 p.m. in Beckman Auditorium. The dance company was established in 1988. Presenting a variety of classical, folk and modern dances, complemented by colorful costumes and both authentic and original music, the company has performed extensively throughout the United States and Europe. Yesterday afternoon, the company held a workshop in Winnett Student Center as well as an evening fireside chat in the Avery Library.

Cai, a native of Shanghai

and a former principal dancer with the Shanghai Opera House, is a prominent member of the San Francisco Bay area's dance community. Currently a committee member of the Bay Area Isadora Duncan Awards, she is considered a major authority and resource in Chinese dance in the Bay Area.

Another noted member of the dance company, composer Gang Situ, was recently awarded a three-year grant as part of New Residencies, a national program of Meet The Composer.

This program is supported, in part, by funds from the California Arts Council, a state agency, and the National Endowment for the Arts, a federal agency.

Caltech attends ACM Competition

BY TECH STAFF

Last Saturday, November 14, Caltech sent two teams to the regional ACM programming contest.

Team "Boris," placing third, was comprised of Michael Pruett, Yaniv Inbar, and Tudor Bosman. Team "Natasha" placed eighth with team members Wesley Tanaka,

Aaron Denney, and Victor Huang.

This year's contest, hosted by Santa Barbara City College, was attended by teams from the entire Southern California region, which includes Hawaii and parts of Nevada. The first place winner was Harvey Mudd's "Team 42," with California Polytechnic State

PLEASE SEE ACM ON PAGE 4

CDS to hold Vegan meeting

BY DAVE TYTELL AND
SHANNON STEWMAN

On Monday, November 23, Caltech Dining Services will hold an open meeting about vegetarian and vegan food on the board program. The meeting will be held in Room 1 in Winnett Student Center at four in the afternoon.

Vegetarians and vegans on the board program have raised concerns ranging from nutritional content to food contamination. The meeting is to get a consensus among vegetarians about the board's vegetarian and vegan food.

Michael Pruett, a vegan on CDS board, expressed his feelings that "it's just fraudulent for Caltech Dining Services to claim to offer a vegan diet if their version of a vegan diet isn't something that vegans can live on." Other vegetarians have expressed similar concerns about nutrition, with the lack of protein being a common concern, with

nutrition being the primary focus of the complaints.

Patrick Gannon, Board Director for Caltech Dining Services, explained that "right now [Caltech] serves and accommodates far more vegan/vegetarians than most southern California schools."

The position of CDS, according to Gannon, is that they "want to be number one in the USA in the vegetarian/vegan area" are looking for consumer input to reach this goal.

At the meeting, CDS plans to rework the menu, including adding and subtracting items and modifying existing entrees.

Still, not many vegetarians and vegans have expressed hope of change. Many have expressed the desire to be let off board until their requested changes are met.

The meeting is open to all interested parties, including undergraduates, graduate students, faculty and staff.

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Clubwatch!

The **Caltech Amateur Radio Club** will be attending the second half of the Collegiate Championships, the Phone team competition, this weekend, November 21st and 22nd starting at 1:00 p.m. on Saturday and ending at 7:00 p.m. on Sunday. Visitors are welcome, extra headphones will be available. E-mail: martin.a.woll@us.pwglobal.com.

The **Caltech Environmental Task Force** meets the first Friday of every month outside the Chandler Dining Hall at noon. All those interested should mail cef@its.

The **Caltech Ice Hockey Club** has already begun its 1998-1999 season. Their next game is Sunday, November 22nd, at 12:15 p.m. against UC Davis at Iceon. Team membership is open to all members of the Caltech community. Also, attendance to all of the home games except the MIT alumni match are free. Email biff@its for more information.

The **Caltech Orienteering Club** will be attending the Laguna Observatory meet at Mt. Laguna on Saturday, November 21st. The club has attended many meets in this area. On December 6th they will be attending a meet at Travel Town, Griffith Park, approximately 20 minutes from Caltech. For more information email o-club@its.

Caltech Psychics' Network is looking for anyone with experience in alien communication. Email marvin@ugcs.

Students for the Exploration and Development of Space is having their 1st Term General Club Meeting for Caltech SEDS on Saturday November 28th at 4:00 p.m. in Winnett Lounge. They will be introducing their new executive committee, discussing their 2nd term lecture series, and going over general club issues. Tomorrow, Saturday, November 21st, they will be touring Palomar facilities. Email cyrano@ugcs for more details.

If your club is planning an event or an activity and would like it covered in Clubwatch! please email club@tech with the appropriate information. Solicitations for advertisements will be forwarded to business@tech.

David Alexander Rosefielde's Eulogy

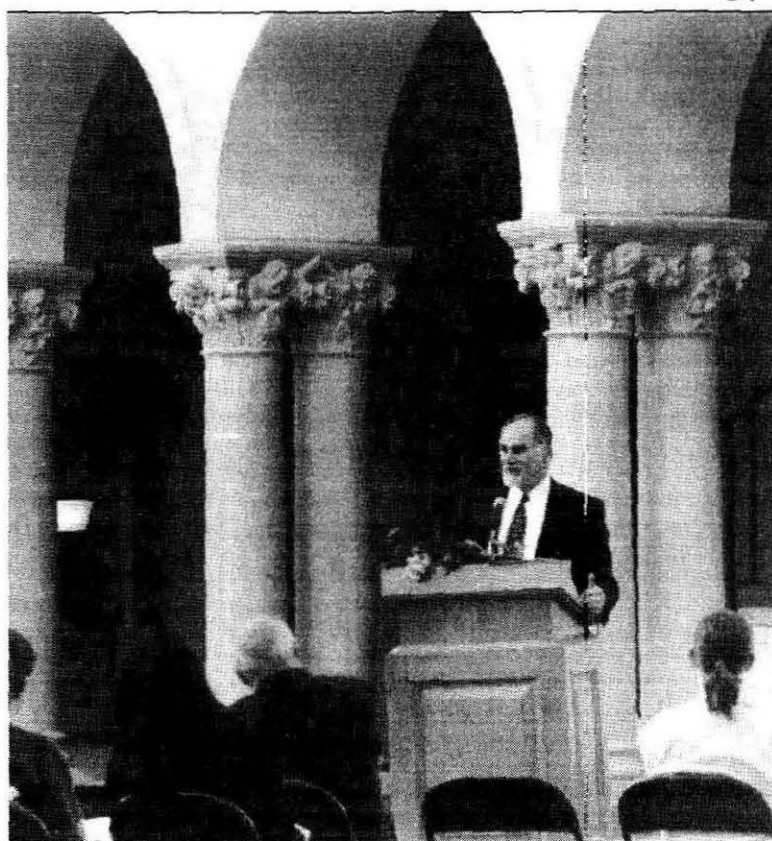


PHOTO BY KUDAH MUSHAMBI

A memorial service was held for David "Alex" Rosefielde last Friday, November 13th. David was killed on September 20 while returning to Caltech.

Students, faculty, and administrators attended the event, along with members of Alex's family. Deans Revel and Brennan, as well as Alex's mother, father, and sister spoke. Also, time was allowed for members of the community to share memories and express their loss. Alex's father, Stephen Rosefielde, pictured above, delivered this eulogy at his funeral and at the memorial service.

I want to stand up for my son Dave, whose memory may be diminished in the recesses of some people's minds because he chose to experiment with explosives, and in this way may appear to be responsible for his own death. This line of reasoning is specious because it disregards the inherent riskiness of all life's choices, and the lethality of low probability events that inevitably threaten all

of us in our daily pursuits. Dave didn't die because he chose to be a chemist, or was too inquisitive, reckless, or imprudent; he died because on September 20, 1998 he was catastrophically unlucky.

Reflection on other forces which cast Dave in harm's way confirm that he was a tragic victim of circumstance. Dave was an audacious intellect who rationally took risks which others

might perceive as unwise in order to actualize his potential and live out the full meaning of his life. Dave's approach to living was a deeply contemplated and felt existential choice, not a lapse of judgement, or a romantic enthusiasm.

To understand Dave properly, it is essential to recognize that he was a prodigy and an insatiably curious, open-minded renaissance young man; a person of discernment, witty with refined taste, an artist, and athlete living in a time when genius, sensitivity and good heartedness weren't sufficient to discover truth and construct a worthy existence. He learned early on that he had to be disciplined, tireless and audacious to push the frontiers that interested him because nothing of lasting value could be accomplished by taking the easy way out. This attitude was best expressed in his choice of Caltech. Dave explained to me that he could go to Brown, excel, coast and amuse himself, or he could test the limits of his genius. The first option wasn't viable. He couldn't accept the possibility of not discovering all that he could be.

Many of Dave's professors have shared their belief that Dave was a once-in-a-decade student (at Caltech), a revolutionary and irrepressible intellect who surely would have made major contributions to science. I have no doubt that they are right, just as I fully accept the testimony of those who disclosed how profoundly he touched them with his ennobling spirit, his loving nature, warmth, compassion, vitality and humanity. Standing up for my son is easy because he was so fine. He was a

joy, and an inspiration, a hope for the future, and as so many of his friends have confided, their hero and mine.

I had long been aware that Dave might be snatched away prematurely. The very virtues which justified any father's love and pride put him at risk, and experience taught me to be wary of too much good fortune.

In the event, I can only lament that his goodness didn't earn him a better reward. There is no justice in an exuberant, youthful soul prudently conducting a scientific experiment being victimized by an improbability. If there is any solace it is this: Dave always displayed the insight, wisdom and courage to construct a caring, exciting, creative, productive and virtuous life, and in so doing was an inspiration to many. While he was prevented by fate from completing his valiant mission, his example will surely help those who knew him to become more than they might believe they could be. I know this is true because Dave was, and continues to be the fountainhead of my own inspiration.

Stephen Rosefielde

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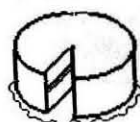
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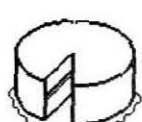


Dessert with the MOSH at

Steele House
355 S. Holliston

Thursday, December 3, 1998
10-12pm

Come Early



The Outside World

by Cheryl Forest

BAGHDAD, IRAQ: After about two weeks of defiance, Iraq is now cooperating again with U.N. arms inspectors and monitors. George Robertson, the British Defense Secretary, warned that "the next time the only warning (about a military strike) that [Saddam Hussein] will get is a withdrawal of the U.N. inspectors."

JAKARTA, INDONESIA: Student protesters are continuing to criticize the government's pace in creating pro-democratic legislation and in removing the military from its political role. The demonstrations escalated into violent riots in Jakarta over this past weekend, resulting in at least sixteen deaths.

JERUSALEM: Israel ordered the first withdrawal of troops Thursday from the occupied West Bank under its new peace deal with the Palestinians. This decision came after the Israeli cabinet decided that the Palestinians had met their initial security obligations. The Wye peace pact binds Israel to give up 13 percent of the West Bank in exchange for a Palestinian crack-down on militants.

AND IN OTHER NEWS: Lucasfilm and 20th Century Fox decided to release the trailer for "Star Wars: Episode I — The Phantom Menace" this past Tuesday in 75 North American theaters, three days prior to the official debut Friday. Once the word got out which theaters were the lucky ones, attendance at those theaters shot up. In Westwood, about 500 people showed up for the afternoon showing of "The Siege;" only one-third stayed to watch the feature, as the rest got up and left after the trailer. The movie is expected to be released over the 1999 Memorial Day weekend, in late May.

ASCIT Coffeehouse raises prices in effort to break even

BY SHANNON STEWMAN

Steady business has marked the ASCIT takeover of the Coffeehouse beginning first term this year. However, staffing hasn't kept up with the increase in business. The Coffeehouse was forced to close early last Sunday and Monday because of understaffing, and its manager, Jen Caron, is actively looking for people to fill waiter positions for Sunday, Monday, and seven to eleven on Tuesday.

A side effect, Caron reports, is that shakes won't be available on Mondays if the staffing situation does not improve, as there is no Monday shake waiter.

On a brighter note, though, both Caron and Baldeep Sadhal, President of ASCIT, report that the Coffeehouse is extremely close to breaking even thanks to its steady quantity of business.

ASCIT is, once again, considering changes to improve the Coffeehouse menu and bring it closer to breaking even.

Some minor price increases are being considered, including rounding off the price of quesadillas from \$2.90 to \$3.00 and raising the price of small fries by less than a quarter.

Resizing some items on the menu is also an option, which could introduce a medium size of fries to comple-

LETTERS TO THE EDITOR

Christian View of the Matt Shepard Case

We would like to clarify some issues raised by recent events referred to in the Deans corner two weeks ago, as well as in the letter to the editor by Dule Misevic three weeks ago. A young man, Matthew Shepard, was brutally murdered in Wisconsin because he was gay. A group of people calling themselves a church picketed his funeral carrying signs saying "God hates fags." This was a senseless and hurtful act of stupid meanness. These misguided people are not representative of the beliefs and accepted practices of the Christian faith. We would like to dispel the misconception that true Christians hate homosexuals. We would also like to provide a more balanced look at the true stand of the Biblical Christian faith.

As Christians, we believe that murder is wrong, and that what was done to Matt Shepard was unquestionably murder. It was absolutely evil, unjustifiable, inexcusable, and sinful, as are all murders. Murder can be the result of greed, jealousy, lust, or hatred. In fact, the Bible clearly states that hatred is tantamount to murder. The picketing of the funeral clearly demonstrates hate, making the picketers just as guilty as the murderers. On their signs they claimed support from Romans 9:13, which has no reference

whatsoever to homosexuals, and was blatantly misquoted, as the Dean correctly pointed out. In spite of this, it appears that some, the Dean included, still see the picketers as part of the Christian Church.

A great deal of the problem is that many people, when they think of Christians, think of radical hypocrites such as the Westboro Baptist Church. In the same way, many Christians, when they think of homosexuals, think of militants like ACT UP, who openly proclaim their hate for Christians, advocate terrorist violence, and disrupt worship services with hateful obscenities (as has happened to one of the authors). Yet most gays are not like that. Because both sides tend to see only the stereotypical, hate filled, and unrepresentative in the other side, real communication on the issue has been stifled. Professed "Christians" who advocate prejudice and violence, who bomb abortion clinics, harass gays, and in general engage in hate in the name of God, do not truly practice or even understand the Christian faith.

It is acceptable to say that something is sin, but not to be hypocritical and hateful about it. All people face the problem of sin in their lives: "If we say we are without sin, we deceive ourselves, and the truth is not in us" (1 John 1:8). If the pastor of the Westboro Baptist Church wanted to fight sin, he should have looked to himself first. We believe it is God's place to judge sinners, not ours. Without the

forgiveness of God, we are all under his judgment. The message that true Christianity presents is that God wishes sinners to repent and be forgiven, not that he hates them. The Bible clearly condemns homosexual intercourse (the act itself, not the tendency), but it also condemns hatred, murder, hypocrisy, lying, sexual immorality, pride and greed. If these picketers had wanted to quote Scripture saying that homosexuality is wrong, they could have found many passages to use. But, they were not concerned with Truth, but with hate. True Christianity does not hate. We believe that all people are sinners, and so to hate sinners is hypocritical. Christianity is founded on love; we are called to love sinners and urge them to change their ways. Human hatred and sin is the cause of this tragedy, not Christianity.

Aren Heinze
Bradley Phillips
Matthew Tiscareno
John Williams

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or by electronic mail to

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The editors reserve the right to
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letter for any reason.

ment the small, large, and jumbo sizes.

Next term, the Coffeehouse will also open an hour later, at nine, on weekdays due to the lack of early evening traffic.

Possible innovations to the Coffeehouse menu include Rice Crispie treats, muffins, hand-packed hamburgers, California rolls, and cucumber rolls.

The Coffeehouse is also

looking into providing Daihatsu delivery from eight to ten, and Autumn Looijen, ASCIT's Upperclassman Director-at-Large, is actively looking for a television for the Coffeehouse.

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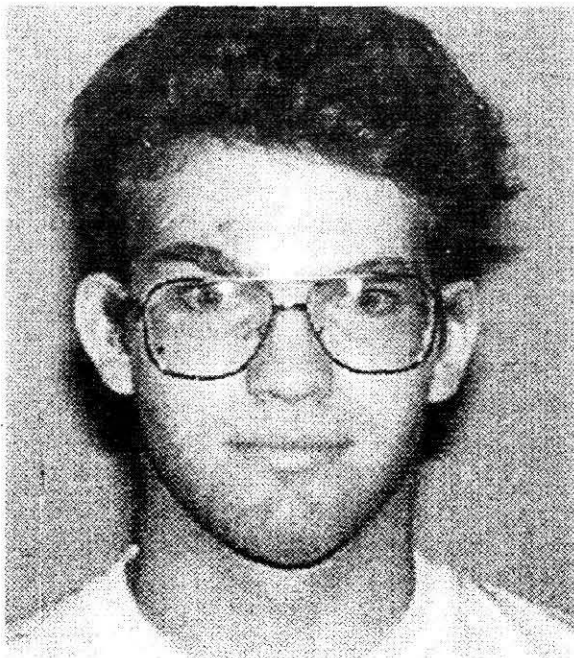
Happy Days by Samuel Beckett

Velvet Goldmine

There's some stunning theater work going on in Santa Ana right now, courtesy of my co-worker Dave Barton, Artistic Director of the Rude Guerrilla Theater Company and director of their current production of Samuel Beckett's *Happy Days*. Not to be confused with the long-running sitcom of the same name, *Happy Days* is a seventy minute near-monologue by a woman, Winnie (Susan Shearer-Smith), half-buried in a giant mound of trash and in giddy denial of her pointless, monotonous life. Central to the tension in this piece are the rare grunts and outbursts from her near-comatose lump of a husband Willie (Barton).

As can be expected, it is something of a daunting task to sit through such a long monologue by a near-immobile protagonist. But don't be afraid to let your mind wander; the stream-of-consciousness nature of her speech alleviates any comprehension problems caused by inattentiveness.

Don't take that in the wrong way; Winnie's absent-mindedness, repetition, and naivete create their impact more from the play as a whole rather than from any specific moment save for the wrenching ending. This is challenging but rewarding stuff. *Fridays and Saturdays at 8, Sundays at 7 through Dec. 6. At the Empire Theater at the corner of Broadway and 2nd Street, Santa Ana. (714) 547-4688. \$12 general, \$10 seniors and students.*



Velvet Goldmine is a wondrous and vivid, yet ultimately unsatisfying movie. Its evocation of the excitement and liberation of the glam and glitter scene of the early '70s and its breaking down of traditional sexual barriers does have much to recommend.

But I felt that after taking so much effort and wit to establish such a great setting and interesting characters, writer/director Todd Haynes (*Safe*, *Superstar: The Karen Carpenter Story*) didn't know what to do with his subject. *Safe* was also both brilliant and frustrating, but whereas *Safe* intentionally lacked resolution, *Goldmine* just seemed aimless.

Nevertheless, it's a very enjoyable aimlessness. The fever-

ish editing, outlandish costumes, and great music (both originals and classics by the likes of Brian Eno and T-Rex are used) would be hard not to like. Jonathan Rhys-Meyers as "Brian Slade" is a very credible David Bowie clone, and Ewan McGregor (*Trainspotting*, *Star Wars: The Phantom Menace*) is pretty amazing as a wild Iggy Pop-Lou Reed composite, but the facts that he looks exactly like Kurt Cobain and can't really pull off an American accent are somewhat distracting. *Velvet Goldmine* may have been a bit disappointing, but I'd still rather you see it than some slick, disposable Jerry Bruckheimer production like *Enemy of the State*.

AUCTION...

CONTINUED FROM PAGE 1

items are a date with Andy Laucious, a date with Jeremiah Smith, a diaphanous-for-a-day and a box of 1,000 condoms.

Caltech is a non-profit organization so the auction cannot be officially advertised outside of the Caltech community. However, Gong is hoping that word-of-mouth will draw more people to the auction. "You should tell all your friends, all your friends' friends, all the alumni and all the staff," she said.

Hurricane Mitch, the deadliest Atlantic hurricane

since 1780, devastated Central America in October and early November. It is estimated that up to 70% of the crops and 90% of the roadways were damaged or destroyed. Honduras and Nicaragua especially have been struck with critical water, food, and medicine shortages.

Gong urges those not participating in the auction to donate non-perishables, blankets, soap, first aid supplies, or other relief items or to send money through The Red Cross and Doctors Without Borders.

ACM...

CONTINUED FROM PAGE 1

University's "Cal Poly Gold" team coming in second.

Both first and second place winners will advance to the finals round on April 8-12, 1999, in Eindhoven, The Netherlands.

Aaron Denney, one of the organizers, remarked that the problems were not as difficult as in past years, and that the small details tripped people up this year. This comment was echoed by Michael Pruett, who recalls being told that no one had ever finished all six ques-

tions before. All of the top three teams finished all six questions this year.

Denney also explained that this year's Caltech contestants were chosen with a local mini-competition in the style of the ACM competition. Denney explained that the contest was not as well publicized as it should have been, so not as many people showed up.

Last year Caltech placed second in the regionals and advanced to the finals, where they placed seventeenth.

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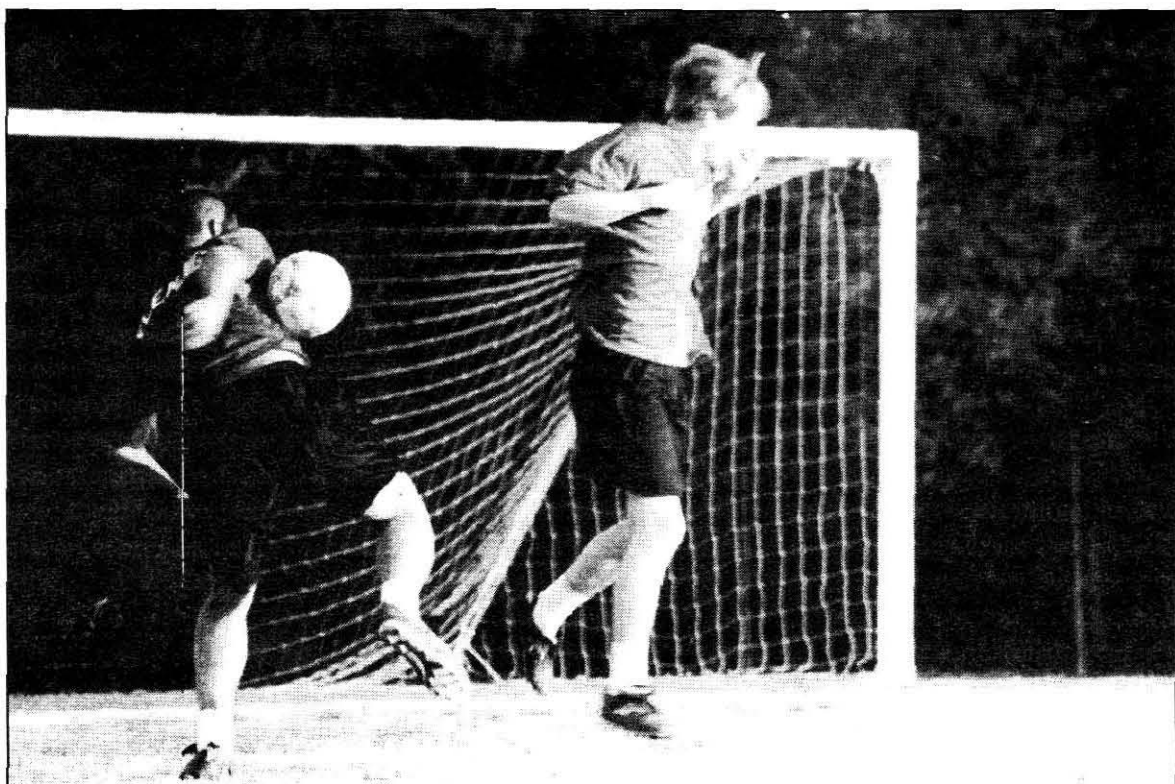
Courtesy of Kenny Ritchie, Athletic Department

With the women's team anticipating the largest turnout in its history and the men's team returning a balanced and experienced squad, the pool's the place to be over the next months for exciting races and athletic glory.

Returning all but two swimmers, the women's team, led by captain Phyllis Chen, hopes to make its mark on the SCIAC this winter. Freshmen Kristin Cook, Sarah Mahony, and Emma Huang have been playing water polo all fall and should come into the season ready to race; Linda Soo and Hanna Kim will specialize in the sprints while Mandy Booth, coming off of months of cross-country training, will handle the middle distance

events. Paula Whitten will join Chen in the strokes, and Melinda Todd, Lisa Litum, Julie Norvilla, and Alisa Chiug will contribute across the board.

Eagle Jones will lead the men. The school-record holder in the 1000m and 1650m events, Jones excels over a range of distances extending down to the 500m and 400m individual medleys. Tom Daula and Wes Tanaka will handle the sprints, while Koen Verbrugghe, Matt Higbe, and Mike Grebek, all of whom have come off of a long water polo season, look to dominate in the stroke events. Mike Fisher looks to repeat as one of the top divers in the Conference.



Members of Fleming Hovse prepare for their Interhouse soccer game Thursday afternoon against Dabney.

Women's Volleyball Team end season with exciting game and broken records

BY MAUREEN BURL AND GERALD PALMROSE

The Caltech women's varsity volleyball team played their last match of the season against long time rival L.I.F.E. Bible College on Oct. 29th. It was an exciting match with Caltech winning in four games, 6-15, 15-10, 15-7, 15-6. After losing the first game, the ladies fired up and came out strong, taking the second game 15-10. They were unstoppable after that and took games three and four easily.

Dominika Rytwinska had a stellar match, leading in kills with 12, and in digs with 17. Jennifer Fong had an incredible serving game, serving for 23 points with 3 ace serves. Fong also had 12 digs and 6 kills. Barbara Kraatz and Karen Lam put up a wall with three blocks each. Senior Hanna Cai played well with 5

kills, 8 service points, and 13 digs, and senior Leigh Engen put up a strong block in the middle front as well. Engen was a motivating force all season in her role as co-captain along with sophomore Jennifer Fong. Corinne Gilliam, a senior and first-year varsity player, came off the bench as a defensive specialist and had 4 digs and 2 service points.

The varsity squad held their end-of-season banquet on Nov. 14th at Bucca Di Beppo with good food and good friends. Season-ending awards, voted on by team members, went to Dominika Rytwinska (Most Valuable Player), Sophia Xiang (Most Improved Player), and Karen Lam and Jennifer Fong (Most Inspirational Players).

The Lady Beavers broke four school records this season, which is especially impressive

PLEASE SEE VOLLEYBALL ON PAGE 9

Harriers Bring Season to a Flying Finish

BY TIM RAUB

The Men's and Women's Cross-Country teams saved the best for last this fall, turning in eye-popping performances at the NCAA Div. III Western Regional last Saturday. The men finished ninth in the Regional but fourth of all SCIAC teams, and they trailed Redlands by only 7 points. The Lady Beavers ran past LaVerne and Occidental to garner their top SCIAC finish of the year as well.

Running in packs, the men's team placed three runners, Adrian Seymour, Arjun Mendirrata, and senior Conrad (Goose) Ziesler in the 27 and low-28 minute range. If the meet had been scored by conference, all three athletes would have earned All-Conference status, and Seymour would have merited first-team honors.

The rest of Caltech's pack gutted out their season's final grueling, spit-on-their-chin, bloody-blister five miles of glory in somewhat slower times, but personal improvements across the board nonetheless. Freshmen Tim Raub and Kenny Higa placed fourth and fifth for the Beavers, while senior Tom

Collier ran a personal record in his last race. Freshman Zach Morris rounded out the men's squad.

Minus captain Phyllis Chen, the women harriers still ran the races of their season, dropping minutes to overtake Occidental, which showed up depleted and mentally beaten (really!). Amy Kelly and Paula Whitten went out hard, and although the field soon caught up managed to die with dignity, leading the Beavers to their outstanding finish. Aimee Pierce, Tory Sturgeon, Caroline Gibbs, Sarah Cooke also finished their seasons with

strong races.

Coach Jasper Simon enthusiastically pointed toward Track season. With its finish on Saturday, the Caltech distance squad proved it can run with anybody in the Conference. With returning weightmen and a new core of sprinters expected to help out the distance men and women, this year's Track and Field team could be the strongest in years. If you're not slow and you don't smell, Track Coach Julie Tingle wants YOU to come out and run track. If you're slow and you smell, you can still be a thrower.

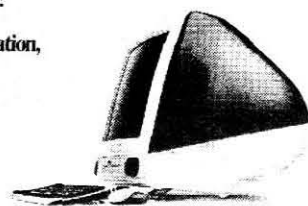
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THE REMAINDER OF THE IHC ROTATION SURVEY

10. Were you given any advice on how to rank the Houses?

NA	Y	N
3	40	184

11. Did you give every House a fair chance?

NA	Y	N
1	168	58

12. Did you feel that you were being judged or evaluated during the House receptions?

NA	Y	N
3	106	118

13. Did you participate in Rotation this year (upperclassmen only)?

NA	Y	N
67	137	23

14. Roughly how many freshmen did you get to know well enough to know whether you wanted them to be in your House or not (upperclassmen only)?

NA	A Few	~1/2	All
83	96	36	12

15. How restrictive do you think the Rotation Rules are (1-5, 1-Not at all, 5-Very)?

NA	1	2	3	4	5
2	4	40	93	59	29

16. How reasonable is each rule and should it change? Houses are specifically prohibited from doing the following during rotations:

- making a trophy or alley challenge
- publishing a social calendar or relating in any fashion future social events
- organizing and sponsoring a social event
- attending a reception of a House of which you are not a member without the permission of that House's president
- discussing with new students anything at all to do with picking strategies, future new student picks, or past new student picks
- spending money on a new student or providing extraordinary goods or services on credit or for no charge
- providing transportation for a new student beyond Old Pasadena except when required for athletic training
- providing alcohol or other controlled substances to a new student
- getting a new student a date
- otherwise unfairly biasing a new student toward or against a house
- Aside from the specifically unauthorized acts, Houses may do anything approved by the IHC in advance of the act
- Information pertaining to the ranking of each student and to the order of the picks may not be made public. All usch information in written or electronic form must be destroyed immediately following picks.

	NA	Unreasonable	Reasonable	NA	Keep	Change	Eliminate	C+E
a.	14	54	159	17	147	35	28	63
b.	15	70	142	16	127	57	27	84
c.	18	59	150	17	135	54	21	75
d.	15	34	178	21	165	25	16	41
e.	16	37	174	21	158	38	10	48
f.	13	29	185	23	160	34	10	44
g.	17	111	99	14	74	87	52	139
h.	15	37	175	16	166	20	25	45
i.	16	72	139	17	125	42	43	85
j.	16	13	198	25	182	14	6	20
k.	16	8	203	28	180	16	3	19
l.	13	14	200	24	184	9	10	19

17. How effective do you think the rules are in preventing the freshmen from being unfairly biased? (1-Not at all, 5-Very)

NA	1	2	3	4	5
4	9	60	75	71	8

18. How effective do you think the rules are in preventing the Houses from going to extremes in recruiting the freshmen?

NA	1	2	3	4	5
2	8	28	33	75	81

19. Did you know this year's IHC's interpretation of the "No-Gag Rule?"

NA	Y	N
2	168	57

NA	Don't	Do (gone to Picks)	Do (haven't gone to Picks)
5	131	42	49

20. What describes your knowledge of the Picks Procedure?

NA	Y	N
6	30	191

21. Do you think that the Picks Procedure should be made public?

NA	Y	N
9	82	136

22. Are you satisfied with the way in which Rotation is carried out?

NA	Y	N
10	149	68

PROTEINS...

CONTINUED FROM PAGE 1

One prominent goal of these techniques is to test the two major contending models for protein folding, the funnel model and the discrete pathway model.

The discrete pathway model is based on conventional reaction mechanisms, where there is only one pathway between the unfolded protein and the folded protein, with a transition state in between.

The funnel model treats all fully unfolded protein conformations as being energetically equal and has a cone, or funnel, as the energy space, with the folded protein at the lowest energy point.

The two models predict difference events as the protein folds. In the discrete pathway model, protein folding results in a gradual reduction of the protein's unfolded length and an increase in its folded length similar to how chemical reactants will decrease in concentration as the products increase in concentration. The funnel model predicts that the average length of the protein will gradually shift from its unfolded length to its folded length, with intermediate links appearing.

Since these two different set of

events can appear to be the same at the end of the folding process, the techniques presented in this issue are critical for looking at the early folding process.

In their own work presented in the issue, Gray and Winkler have developed techniques with laser-induced electron transfer to trigger the folding of cytochrome c. By injecting an electron into the iron atom in the heme group of the protein, the iron is reduced from iron (III) to iron (II) and the heme group changes from hydrophilic to hydrophobic. This change in environmental preference causes the protein to fold.

Absorption of the heme group is then used to measure the rate of folding, although Gray and Winkler plan to soon measure the rate with a fluorescent probe whose free energy does not change the folding process.

The work of Gray and Winkler in this area is part of a set of Caltech faculty working on a part of the protein folding problem. Other faculty doing research in this area include Stephen Mayo, Sunney Chan, Douglas Rees, Richard Roberts, Barbara Imperiali, William Goddard, and Jerry Solomon.

METEORS...

CONTINUED FROM PAGE 1

contingent from Caltech packed up and headed home for another day of grueling work.

The Leonids are a yearly phenomenon, occurring when Earth glides into the trail of debris left behind by the comet Tempel-Tuttle. Tempel-Tuttle, discovered in 1865 by Ernst Tempel and Horace Tuttle, is 4 km in diameter and has an orbital period of 33 years. Its elliptical orbit intersects Earth's orbit once at the point corresponding to November 16 (give or take a few days).

Dozens of experiments were undertaken during the shower by many research groups around the world. Samplers, videocameras and spectrographs were mounted on balloons, high-altitude aircraft and on the ground. The data is expected to help us understand the composition of comets, the life-cycle of a comet and other things.

Every 33 years, a new peak

in the meteor rate is observed, a phenomenon linked with the orbital period of Tempel-Tuttle. The last peak was in 1966 when a staggering 150,000 meteors per hour storm was observed over the period of one hour. The typical rate is under 20 per hour. Several models for this year favored China as the recipient of the storm (19:20 Universal Time on Tuesday, November 17) and the rate was expected to reach 5,000 per hour. Unfortunately, the predictions were off as observers all throughout Asia reported fewer than expected meteors and no storm.

The expedition to Joshua Tree was organized by the Caltech chapter of SEDS (Students for the Exploration and Development of Space). Future trips are planned for the Perseid meteor shower in August and next year's Leonids. The club can be reached at seds@its.

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A.S.C.I.T. Minutes

NOVEMBER 16, 1998

Proceedings of the ASCIT BoD Shin-Dig, 16 November 1998

This document is not an official proceeding of the ASCIT Board of Directors.

Present: BoD (minus Devi, Rob, Steve, Jaideep)

Everybody finally gets their crap in order at 11:15.

Attention Admissions office: "Kevin Ritchburg wants more gay men - and good ones - not like the shit we have now." Alan Rosenwinkel

Mike Davies was supposed to be here to request funding for a party. A quorum of the BoD is not present so we can't allocate money anyway. That's no excuse, though. You suck, Mike. The Corporation is displeased.

Officer Reports

Autumn

Motorpool doesn't want the van but they are willing to sell it for us. Autumn is gonna find out where the Housing Office gets their TV's.

Hanna

Fleming has yet to pay for renting the ASCIT lights. Page got the lights from Fleming and also owes the big bucks.

Kevin Ritchburg wants more gay men - and good ones - not like the shit we have now.

Devi (in absentia)

The memorial service went well. There was good attendance at the CAPSI dinner and Devi will be processing the information that came out of that meeting. The Faculty Advisors Committee will be meeting with the Deans on Tuesday. The ARC will meet on Thursday. On Friday, the ARC will harass people on the Olive Walk in an effort to find relevant topics for the Student/Faculty conference next year.

Jaideep (in absentia)

Those survey results didn't

make it into the Tech last week. [Ed. note: See page 2 of last week's Tech. See also page 6 of this week's Tech.]

Rob (in absentia) Flake City, USA.

Mike

That non-affiliated mailing list will be available soon.

Alan

The BoC opening business meeting is getting closer. Get those rotten tomatoes ready.

Baldeep

The Leader gave the Junior Class officers a quick kick in the butt. He is setting up a meeting with some folks from APE to see if we can make use of their new information infrastructure.

ASCIT officially recognizes GSC as an acronym. An exchange of ambassadors will take place soon.

Meeting totally abandoned at 11:20.

Screw you,

Michael D. Astle

Mike D. Astle
ASCIT Secretary

Y news

by Elisa Chiang

This weekend, the Y is having three volunteer activities.

On Saturday November 21st, there is a group going out to Strawberry Peak to do some Trail Maintenance.

We will be clearing brush, picking up trash, etc. If you're interested in going, email Marcus at msarofim@its.

We will be meeting at 10:00 am at Steele House and will return by 3:30 pm. Food, drink, and transportation provided. Please dress in warmly in layers. This is a great way to earn \$12 an hour if you're on work study!

Another activity will be at Union Station where we bring food to Union Station and feed the poor. The group will be meeting at 6:30 p.m. at Steele House. This is another

opportunity for people on work study to earn more money.

ThinkQuest, competition for High School students creating educational web pages, would like some volunteers for there semi-finalists competition. People are needed Friday, Saturday, and Sunday, November 20th-22nd from 8:30 p.m. to 1:00 a.m. If interested, contact Andrew at hafter@its. Again, work study equals money!

We will be having another Noon Concert this Friday in front of the Red Door Cafe. The Y will be collecting money to help Hurricane Relief in Central America. Right now, the relief group has a lot of food to send and no funding to get it there. So contribute a dollar to a good cause and stop by and listen to live music.

If you're interested in getting involved with the Y, we meet at Steele House at 12:15 p.m. every Monday. Come join us! Everyone is welcome.

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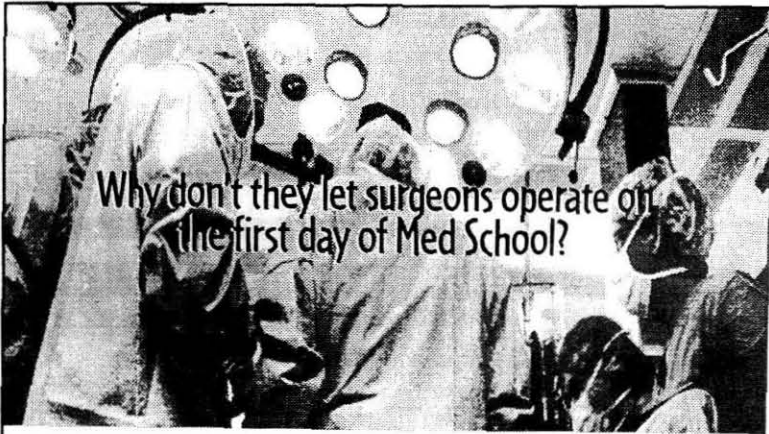
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EOE

The Cruise tours philosophy, New York City

BY JUSTIN HO

The Cruise

Not Rated—but does contain a bit of foul language and a guy opening an emergency fire door when he shouldn't.

My apologies for picking another artsy/indie flick, but given the competition from new release blockbuster-wannabes *Meet Joe Black* (2 hours and 50 minutes of death-becomes-Brad Pitt numbing entertainment) and *I Still know what you did Last Summer* (gory, mindless slasher movie part two where you know that Brandy and Jennifer Love Hewitt HAVE to survive because of mass media appeal), I'd pick the lunatic on the New York City Tour Bus any day. A brief blurb on the two big releases though: EW's critical mass, a panel of Siskel & Ebert, the two Knight-Ridder Syndicate reviewers, a USA Today guy, and the movie person from Entertainment Weekly itself, gave an average B- (haha people not on pass-fail) for *Joe Black* and a D to *I Still Know What You Did Last Summer*. Speaking of which, since the failed murder of hook slasher Ben Willis (he had his hand chopped off by some pulley on a fishing rig and supposedly died because his body was never found) happened two years ago, the title is

a bit of a misnomer. Also, savvy geography bee-ers should know the capital of Brazil ain't Rio.

Now, back to the *Cruise*. Imagine the bald math guy from *Pi* with superfluous wavy hair, and a flair for the philosophical, sometimes poetical, with a side of SAT vocabulary. Same city, similar allusions to Judaism, but while Max the math genius sees math everywhere, Tim Levitch sees a battlefield between the "cruise" and the "anti-cruise." Levitch's job as a city guide for a tour bus is a manifestation of the "cruise", pure liberation and the pursuit of self-realization. In his self-analysis the city comes up more often than not, so getting a free ride on top of the double-decker bus to let his mind wander is conducive to his mental health. Likewise, sharing a deep feeling of the city with Big Apple sojourners is part of the liberation/anti-job that is his "cruise". Restrictive conformity to any aspect of civilization, on the other hand, like giving into the abusive city grid pattern which viciously confines people to walk in 90 degree angles constitutes "anti-cruise." Road blocks and stop signs which restrict the freedom of human mobility (a.k.a. you're not allowed to do something you may or may not want to do) are likewise objects of "anti-cruise".

Believe me, he's not on crack—he's like this through the whole movie. But, it's always nice to justify "running from the cops" as an evasion of the inherently evil "anti-cruise" properties of incarceration.

The 80 minutes of movie footage comprise a nice documentary of the philosophical idiosyncracies of the Yankee Cosmo Kramer/Thomas Paine hybrid, 28-year old Timothy "Speed" Levitch. As he skirts along on top of his double-decker bus, he presents an intense, unique picture of concrete-laden New York City. Broadway is the "original, dysfunctional vein of Manhattan," rather than a street. Central Park, in its natural glory, is a rather artificial construct of 2,000 new trees, 10 million tons of imported top soil, and 140 miles of drainage pipes. Seemingly jaded comments to make about your hometown, but the Speed actually isn't. He simply sees New York on a totally different plane. Imagine a philosopher who sees a beautiful flower and suddenly wants to be the flower. A normal person would sniff the flower and walk away or take a picture. A reprobate would pluck the flower and squish it. Levitch, on the other hand sees the opportunity to appreciate the flower, and have the flower ap-

preciate the beauty that is him. This isn't some cry for attention—just a very intense sense of the beauty of individuality.

Levitch is full of enticing eccentricities. He treats New York City as an ever-changing organism, and feels a very personal attachment. Each tile, each road, every building has some kind of personality—little buildings even feel bad because they're inferior to big buildings. Collectively, the architecture gives NYC a fickle personality. The Big Apple last winter was an angry wife in a divorce—a conclusion which Levitch makes because of the violent gradations of building heights. Spring yielded a softer side, and summer holds either a mermaid or a cyclops.

Despite the troubles of day-to-day life, poverty, and upper management, Levitch is very content. There's no stopping a guy who feels something orgasmic about terra architecture. Though he uses esoteric philosophical overtones and a complex vocabulary in his monologues directly to the camera, he doesn't lose sight of the average audience, who might get lost in his loquacious opinions of ... whatever. He easily makes the transition from genius poet to Joe Average when he converses with co-workers. A heartwarm-

ing conversation with his bus driver of several years ensues when he realizes that their pairing will be disrupted. Levitch has spent so much of his life finding a humane, beautiful aspect in everything around him, and attempting to induce reciprocal feelings of respect that there is no denying that he is at peace. For a few moments, Levitch confronts all his past abusers with a candidness which is sometimes humorous, sometimes pitiful, but ultimately creating a sense of serenity. As a prescription for enjoying his existence, Levitch spends his last moments of the film spinning around in the plaza between the World Trade Center buildings. Afterward, he lies down and allows the splendor of the buildings to overwhelm him. The meaning of this childish maneuver is simply to assert his happy state of being. He is in a place where he understands, and is likewise understood.

The movie is definitely entertaining, and, given that it was derived from 100 hours of home video camera footage, praiseworthy. Unfortunately, it's rather esoteric in nature, and not a necessity.

Rating—> *** (I'm still using stars until the end of pass-fail second term)

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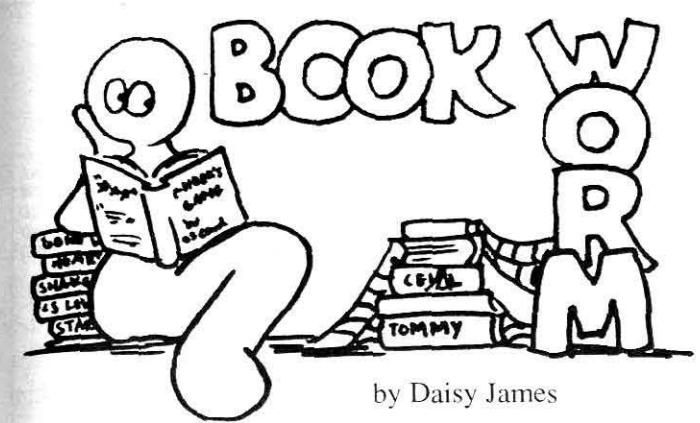
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Dead Cert
Dick Francis

Though Francis is listed and described as a mystery writer, I would class this book as more of a thriller or suspense novel. For one thing, the criminal was so easy to guess that I was almost convinced that it had to be someone else. Of course, this is a very early example of his work; it's possible that the author has improved since.

Still, this is a fine book. The characterization has depth, the imagery is vivid, and there is that indefinable quality of good suspense reading that keeps the reader in her chair long after she should have started on her homework.

Bill Davidson is an amateur jockey in 1960s England. The story opens in the

middle of a steeplechase with a wonderful bit of narration and takes us with him as he sees his friend riding ahead of him fall and be killed. Convinced that the accident was contrived, Davidson gets himself in fairly deep as things get even bloodier.

There's no shortage of violence, but none of it seem really gratuitous. There is also a very satisfying romantic subplot.

Dave Barry Turns 50
Dave Barry

A longtime reader of this column might note that I seem to be quite a Dave Barry fan. If they cared. I am, I find his stuff almost endlessly hilarious and I have memorized almost every book he has written. He

is in fine form here, even if it is geared towards aging boomers and not college students.

So what happened to the other two stars? The problem is that Barry spends about half of the book dwelling on something that is sort of a pet peeve of mine: pretentious boomer vanity. It is a year by year breakdown of 1947 to 1974 told from that not-quite-unique-enough perspective.

It is funny, and at least he doesn't take himself seriously. But he does take the rest of his generation's adolescence seriously, and that's a mistake. Just about everyone who was born after 1960 is sick beyond words of hearing about how significant and important these people were. As if cutting classes and looking concerned did more for the civil rights movement than all of the people (mostly non-boomers) who actually worked and risked and sacrificed to really change things.

I could go on, but I'm drifting already. Apart from that, it's a really funny book with lots of jokes about aging and death and a great running gag concerning someone named "Buffalo Bob".

VOLLEYBALL...



CONTINUED FROM PAGE 5
given that the season was much shorter than usual. Rytwinska broke the records for most kills in a season with 132 (the previous record was set by Jennifer Holland in '96 with 116), and best kill efficiency with .203 (previous record set in '92 by Jennifer Yu). Karen Lam tied Alexis Johnson's ('96) record for most blocks in a season with 26, and Jennifer Fong shattered the record for best service efficiency with 96.6% (previously held by Angie Bealko '93 with 96.1%). Three players lettered for the first time - freshmen Karen Lam and Barbara

Kraatz, and junior Sophia Xiang.

The junior varsity squad didn't come away with any wins this season, but they improved a lot and enjoyed the season. They held an outdoor bbq banquet on Nov. 7th. The JV squad voted Sue Hsieh as Most Valuable Player, Huimou Li as Most Improved Player, and Dana Vukolovich as Most Inspirational.

Although the varsity team struggled this season without a setter, it was a young squad and improved greatly towards the end of the season. Returning players look forward to a winning record next season.

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TCHAIKOVSKY
Violin Concerto

Richard STRAUSS
Death and
Transfiguration

Sunday, November 22, 1998
7:30 p.m.
Ramo Auditorium, Caltech
Information: 626/395-4652

Monday, November 23, 1998
8:00 p.m.
Thorne Hall, Occidental College
Information: 323/259-2785

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Dean's Corner

*What is so bright that only
a fool would do it?*

by Jean-Paul Revel

joy,
of warmth,
of fellowship.

And why? I really don't know why. I don't. It must have been the danger of the thing, risking something that few others do, the excitement of doing something unusual.

But is it really so esoteric, so special a feat? After all, recipes for making the explosive that took him away are easily found on the web, along with reasonably disingenuous warnings about the perils. I say disingenuous, because, had the author truly believed what he wrote, he should not have bothered to place the recipes on the web in the first place.

I quote, including grammatical errors and all: "It is highly friction sensitive and extreme care should be taken to avoid this. Acetone peroxide is one of the most sensitive explosive

Great care would be needed to handle this explosive carefully.

CAUTION: Acetone peroxide one of the most sensitive explosive known to man. This composition is dangerous and would need to be handled by someone with a lot of common sense. Great care would be needed to ensure the safety of the manufacturer due to the high sensitivity of the acetone peroxide. These dried crystals would be ready to load into detonators for immediate use as the storage stability is not very good."

It was a catastrophe to lose our friend, for us here, the profs, the deans, the staff, for his friends and parents. It is a catastrophe not only because we lost a companion, but because losing him is such a waste of potential achievement.

Now you'll ask, why does the Dean carry on so, we know all that, we know, we know what we are doing, none of the

warnings really apply to us, we are cautious, knowledgeable, able to handle this, of course. Well I'll tell you why.

One of the things that happened last week end, barely more than a day after the Memorial to Alex, is that someone made an explosive device which detonated in front of the Beckman Institute. Now I have no clue as to who did this, I have no reason to believe it was a Techer's way to express him/herself. I have no reason to believe that Alex's Memorial and the metallic sodium explosion and fire were related in any way.

In fact, there seems to be general and genuine ignorance of the weekend incident in the student population; in other words, not a great likelihood that anyone from Caltech was involved.

After the trauma of Alex's death, though, I need to tell you all, quoting from the Psalms: it is vanity. Vanity and a misplaced belief

1. That one is catastrophe-proof.

2. That it is cool

3. That you know better.

But please look at the con-

sequences of the Beckman Institute interlude: Several fire companies responded, because fires and explosions of unknown origin at a school, could have meant something very serious. We are most grateful for that.

Since it was not immediately obvious what was happening a Hazardous Materials Team was also dispatched to the scene, and of course the Police department had a detachment there as well. As has been said before the use or possession of explosives is unlawful.

The people responsible for this will be accused of committing a felony. Lucky that there was not a "real" fire or emergency in the city at the same time. The prank did occupy enough of the Fire Department that there might have been problems if there had been a major emergency elsewhere, someone else might have been injured as a result.

So what is so bright about any of this? Only the flash.

A bientot

Jean Paul Revel

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INFORMATION SESSION

Tuesday, Dec. 1st
Room 35, Student Activities Center, 4-6pm.

ON-CAMPUS RECRUITING

Wednesday, Dec. 2nd
Room 27, Student Activities Center, Parsons Gate, Hall of Administration, 8:30am-4:45pm.
Contact Courtney Sarno:
csarno@scient.com

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Announcements

The **Career Development Center (CDC)** is looking for current graduating seniors to participate in focus groups to assess student career-related needs. Whether you've decided to go to grad school, get a job, don't know yet, or haven't even started thinking about it, the CDC would like to hear from you. Each focus group will last approximately 2 hours (refreshments will be served) and participants will receive gift certificates. Debi Tuttle, a Caltech alum and intern in the CDC, will conduct the focus groups. If you are interested in voicing your opinion and making a difference, please email Debi at debit@caltech.edu or call the CDC at x6261.

A **charity auction** to benefit the **victims of Hurricane Mitch** in Central America will be held in the Ricketts-Fleming Courtyard on Friday, Nov 20 (the day the Tech comes out! tonight!) at 10pm. Items cannot be charged to any accounts, so please bring your checkbook or wallet.

The **Catholic Big Brothers** program needs men to serve as Big Brothers for fatherless youths of all faiths. The children who need your friendship and guidance are between the ages of 7 and 14 and live in communities throughout Los Angeles County. More than 200 children are currently on the waiting list, hoping that a Big Brother soon becomes available. For more information about how you can fill this need, call 800-463-4066.

Attention Seniors: Hard copies of the **DOD Fellowship** application are available in the Fellowships Advising Office. You can also access applications on the Web at www.battelle.org.ndseg. The formal name for the DOD fellowship is the **National Defense Science and Engineering Graduate Fellowship Program** or NDSEG. It has nothing at all to do with government service and those who applied for the NSF and have U.S. citizenship should apply. The application receipt deadline is January 20, 1999. Contact: Lauren Stolper, Director, Fellowships Advising and Resources Office, MSC 25-58.

You, too, can be a certified game show winner just by logging onto The Station @ sony.com (www.station.sony.com) and clicking on the **College JEOPARDY!** Online icon! Make it to the finals and you'll win VIP auditions to qualify as a contestant on TV's JEOPARDY! For more information contact Julie Mathis at 213-489-8250 or Bree Birnbaum at 212-453-2164.

El Lissitzky (1890-1941), one of the most influential artists of the early twentieth-century Russian avant-garde, will be the subject of an exhibition at the Getty Research Institute for the History of Art and the Humanities opening on November 21, 1998. The display will draw entirely on the Getty's own collections, "**Monuments of the Future: Designs by El Lissitzky**." For information and parking reservations to visit the exhibition call 310-440-7300.

Interested parties may nominate themselves to be the **Big T Business Manager** by signing up on the door of SAC 33. The BM is responsible for keeping the books and getting advertising for the Big T. This position carries

with it not insubstantial financial compensation. Talk to Wren Montgomery, Sarah Wantoch, or Nicholas Breen for more information about the duties of the Big T Business Manager. Join the ASCIT publications machine.

Low-cost and free mammograms and Pap tests will be available at hundreds of approved facilities throughout the months of October and November. These facilities are listed in the free Breast and Cervical Cancer Health Services Directory. An English and Spanish directory is available by calling 1-800-706-3131 or visiting an American Cancer Society Office.

Sunday, November 15, an explosive device detonated near Beckman Institute. Anyone with information or questions about this incident should contact the Deans, the Director of Residence Life, or the Vice President for Student Affairs.

Events

Caltech SEDS is sponsoring a tour of **Palomar Observatory** on Saturday, November 21. To sign up for the trip or for more information email Leon (leon@ugcs.caltech.edu) ASAP!!

The 3rd lecture in the fall seminar series on science, ethics, & policy will be held on Friday, November 20 at 4:00 p.m. in room 25, Baxter. The lecture, entitled **Carbon Dioxide and Climate: The First One Hundred Years, 1859-1959** will be given by Dr. James R. Fleming, Professor of Science, Technology, and Society at Colby College. Refreshments will be served in Judy Library in Baxter following the lecture.

The Armchair Adventures travel film **Lost Worlds of the Bible** will screen in Caltech's Beckman Auditorium on Friday, December 4 at 8:00 p.m. Covering the countries of Lebanon, Israel, Syria, and Jordan, the film explores the historical sites contemporary to biblical references, as well as locations important to the modern countries of the region. Tickets are priced at \$9.00 and \$7.00 and can be purchased at the Caltech Ticket Office, 332 S. Michigan Avenue. Call toll free 1-888-2CALTECH (222-5832) or 626-395-4652 for more information.

The Nutcracker will be presented by the new Pasadena Civic Auditorium Foundation at the Pasadena Civic Auditorium, 300 E. Green St., on December 22-27. The times are as follows: December 22: 7:30 pm; 12/23: 2:00 pm & 7:30 pm; 12/24: 11:00 am; 12/26: 2:00 pm & 7:30 pm; 12/27: 2:00 pm & 7:30 pm. Tickets are \$21 - \$56. To order by phone call Ticketmaster at 213-480-3232. For additional information call the Civic Box Office at 626-449-7360.

Griffiths Expositions presents the 14th annual **Pasadena Coin & Stamp Expo** on November 27-28 (10 am - 6 pm) and November 29 (10 am - 5 pm) at the Pasadena Center, 300 East Green Street. The Expo features over 75 dealers displaying a variety of US, world and ancient, investment and collector quality coins and stamps. The Expo also offers a wide selection of stamp and coin supplies, maps, bonds, stocks, currency, casino chips, jewelry, beanie babies, and other assorted collectibles. Tickets cost \$2 general admission, \$1 seniors and students with ID. For information call 626-432-6660.

Mints

The **Earnest C. Watson Lecture Series** continues next term with a talk entitled "Is There Such a Thing as Pseudoscience? Lessons from the History of Mesmerism" given by Alison Winter, Assistant Professor of History at Caltech. The lecture will be held on Wednesday, January 13, 1999 at 8:00 pm in Beckman Auditorium.

Join conductor Jorge Mester and the **Pasadena Symphony** at 8:00 pm Saturday, November 21 at the Pasadena Civic Center for the second performance of their 71st season. From the simple grandeur of Copland's beloved "Fanfare" to the heart-wrenching lyricism of Strauss' "Metamorphosen" for 23 solo strings, to the sonic splendor of Sibelius' musical landscapes, this is the concert for all who love the sheer beauty of sound that a great orchestra can make. For more information call 626-793-7172, 626-584-8833, or Ticketmaster at 213-480-3232.

Fellowships and Scholarships

NSEP Scholarships for 1999-2000 Applications for National Security Education Program (NSEP) undergraduate scholarships are currently available for study abroad in summer 1999, fall 1999, and spring 2000. Scholarships are available to U.S. citizens enrolled at two- and four-year institutions who wish to study abroad in critical world areas in Africa, Asia, Eastern and Central Europe, Latin and South America, and the Middle East. Scholarships are not available for study in Western Europe, Canada, Australia, and New Zealand. Sophomores and Juniors majoring in science and engineering may apply to study for a summer. This summer, Walt Ogburn '99 studied Russian language in culture in St. Petersburg under an NSEP Fellowship. During the summer of 1998, Jeanne Wilson '98, who is now on a Watson Fellowship, studied Turkish language and culture in Istanbul.

The maximum scholarship is \$8,000 per semester and \$16,000 per academic year. **The campus application deadline for the 1999-2000 academic year is January 25, 1999.** Turn all materials into the Fellowships Advising Office, Room 25 of the SAC. All applicants must undergo an endorsement interview with Lauren Stolper, Director of Fellowships Advising. Applications will be available in Fellowships Advising by mid-October. Additional information on preferred geographic regions, languages, and fields of study and application procedures can be found at <http://www.iie.org/nsep> (FAR)

The **American Chemical Society Scholars Program** will award ap-

proximately 75 scholarship awards to undergraduate students interested in four-year degrees in the chemical sciences. Applicants must be African American, Hispanic American, and Native American; and be U.S. citizens or permanent residents. These scholarships are valued at up to \$2,500 for the academic year. Applications are available in the Financial Aid Office. The deadline is February 15, 1999.

The **American Chemical Society/PPG Scholarships Plus** scholarships are for incoming freshmen interested in four-year degrees in the chemistry or chemical engineering. Scholarships are renewable if initial eligibility criteria are maintained throughout undergraduate study. Applicants must be African American, Hispanic American, and Native American, and be U.S. citizen or permanent residents. These scholarships are valued at up to \$2,500 for each academic year. Applications are available in the Financial Aid Office. The deadline is February 15, 1999.

The **Chemical Society/Bayer Scholars** awards are for incoming freshmen, sophomore, and junior students majoring in chemistry or biochemistry. Scholarships are renewable if initial eligibility criteria are maintained throughout undergraduate study. Applicants must be African American, Hispanic American, and Native American; and be U.S. citizen or permanent residents. These scholarships are valued at up to \$2,500 for each academic year. Applications are available in the Financial Aid Office. The deadline is February 15, 1999.

The **American Society of Naval Engineers** is offering scholarship awards of \$2,500 for undergraduate students and \$3,500 for graduate students for the 1998-99 academic year. Applicants must be U.S. Citizens and demonstrate a genuine interest in a career in naval engineering. The scholarship award must be for support of the last year of full-time or co-op undergraduate program or for one year of full-time graduate study leading to a designated degree at an accredited college or university. Applications are available in the Financial Aid Office. The deadline is February 15, 1999.

The **Southern California Chapter of Women in Cable & Telecommunications** is offering a \$1,000 Jeanne Cardinal Grant to one female junior or senior student residing in Southern California. Applicants must plan to pursue a career in the telecommunications field, have a 3.0 or higher GPA, and be active in at least one school approved campus organization or in community service. Applications are available in the Financial Aid Office. Applications are to be completed and sent to: The Southern California Chapter of Women in Cable & Telecommunications, c/o Pamela Drake, Avenue TV Cable Service, Inc., PO Box 1458, Ventura, California, 93002. The deadline is December 31, 1998. (UFA)

The **Elie Wiesel Foundation for Hu-**

manity sponsors an annual essay contest for full-time undergraduate juniors and seniors in colleges and universities throughout the United States. Essays must be submitted on behalf of a student by a college or university administrator, faculty advisor, or faculty member, and be accompanied by a completed entry form. No more than three (3) essays may be submitted from the same college, university, or campus in any one contest year. To obtain an entry form and further information, send a self-addressed, stamped envelope to: The Elie Wiesel Prize in Ethics, The Elie Wiesel Foundation for Humanity, 450 Lexington Avenue, Suite #1920, New York, NY 10017. No FAX submissions will be accepted. Entries must be postmarked by January 22, 1999, or be delivered to the Foundation office by 5:00 p.m., January 22, 1999. (UFA)

The **American Electroplaters and Surface Finishers Society (AESF)** is offering scholarships to upper-class undergraduate and graduate students for the 1999-2000 academic year who are interested in careers in the electroplating and surface finishing field. Undergraduates must be full-time and majoring in chemistry, chemical engineering, environmental engineering, materials science, materials engineering, metallurgy, or metallurgical engineering. To obtain an application form and further information, send a self-addressed, stamped envelope to: AESF Scholarship Committee, American Electroplaters and Surface Finishers Society, 12644 Research Parkway, Orlando, FL 32826-3298. The deadline is April 15, 1999.

The **Caltech Financial Aid Office** is proud to introduce a new link on our website called the Financial Aid News. This site is designed to provide students with updated information about scholarship opportunities at Caltech. Our office will post these scholarship opportunities on a weekly basis. You can view the web site at www.finaid.caltech.edu/news.html. (UFA)

For information on the listed fellowships, assistance with essays, for clarification of questions, contact:

FAR - The Fellowships Advising and Resources Office. For information, please contact lauren_stolper@starbase1.caltech.edu. To make an appointment, call x2150.

UFA - The Undergraduate Financial Aid Office. For information, call x6280, or stop by 515 S. Wilson for an appointment.

To submit an event for the Mints, contact mints@tech.caltech.edu or Mail Code 040-058 by noon on the Monday prior to its inclusion. Submissions must be brief and concise. Please do not send Mints in difficult formats like binhex or word document, .rtf and ASCII are best. The editors reserve the right to edit and abridge all material. Solicitations will be referred to the business manager.

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